OmniAir Consortium, Inc.
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September 5, 2024

Marlene H. Dortch, Secretary
Federal Communications Commission
45 L Street, NE
Washington, DC 20554

Re: Wireless Telecommunications Bureau and Office of Engineering and Technology Seek Comment on NextNav Petition for Rulemaking (WT Docket No. 24-240; RM-11989)

Dear Ms. Dortch,

OmniAir Consortium, Inc. ("OmniAir") appreciates the opportunity to provide its comments in response to the Commission's *Public Notice* (DA 24-776): Wireless Telecommunications Bureau and Office of Engineering and Technology Seek Comment on NextNav Petition for Rulemaking in WT Docket No. 24-240 ("*NextNav Public Notice*").[1] The *NextNav Public Notice* requests comments regarding a Petition for Rulemaking from NextNav, Inc. ("NextNav") requesting that the Commission initiate a proceeding to reconfigure the 902-928 MHz band ("Lower 900 MHz Band") and adopt new rules to enable the deployment of a 5G terrestrial positioning, navigation, and timing ("PNT") network that "complements and backs up" the U.S. Global Positioning System (GPS) ("NextNav Petition").[2]

OmniAir has a direct interest in this proceeding. OmniAir provides independent, third-party testing and certification services of Radio-frequency Identification ("RFID") devices for electronic tolling services. OmniAir's members include public transportation agencies that have deployed electronic toll services in the Lower 900 MHz Band across the country and manufacturers that produce the RFID "readers" affixed to toll gantries and the "toll tags" installed on vehicles.

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[1] *Wireless Telecommunications Bureau and Office of Engineering and Technology Seek Comment on NextNav Petition for Rulemaking,* Public Notice, WT Docket No. 24-240, DA 24-776 (rel. Aug. 6, 2024) ("*NextNav Public Notice*").

[2] NextNav Petition for Rulemaking, Enabling Next-Generation Terrestrial Positioning, Navigation, and Timing and 5G: A Plan for the Lower 900 MHz Band (902-928 MHz) at i (filed Apr. 16, 2024). NextNav also filed a supplement proposing specific part 90 rule revisions. Letter from Robert Lantz, General Counsel, NextNav Inc., to Marlene H. Dortch, Secretary, Federal Communications Commission (filed June 7, 2024) (jointly referred to as "NextNav Petition")

I. Description and Mission of OmniAir

Established in 2004, OmniAir is a 501(c)(6) industry association promoting interoperability and certification for Intelligent Transportation Systems ("ITS"), electronic tolling, and connected vehicle technologies. OmniAir offers independent, third-party testing and certification for RFID readers and toll tags, using qualified test tools and validated test cases, accredited test laboratories, and authorized field test sites. OmniAir offers similar testing and certification programs for other wireless communications technologies used in transportation, including cellular vehicle-to-everything (C-V2X) radios.

OmniAir's mission is to ensure the availability of trusted communications devices in transportation. OmniAir Certification provides assurance to deployers that devices conform to industry standards, and meet minimal interoperability, security and performance requirements.

OmniAir's more than 80 members from around the world include key stakeholders representing both public and commercial interests: automotive OEMs, radio device manufacturers, Tier 1 Suppliers, chipset manufacturers, engineering firms, local governments, deploying public agencies, test laboratories, test tool providers, and research institutions.

II. OmniAir and Electronic Tolling

In 2012, OmniAir started its first certification program for the 6C-for-Tolling Program for tolling devices compliant with requirements based on ISO/EC 18000-6C (Type C) RFID protocol. OmniAir's certification program continues to serve the tolling industry today. Many North American tolling agencies require the use of OmniAir Certified equipment in procurements.

From 2015-2017, OmniAir led the National Toll Interoperability testing program, evaluating RFID protocols through extensive conformance, interoperability, and performance testing. Earlier this year, OmniAir expanded its tolling certification programs to include multi-protocol UHF RFID operations, with TDM and ISO 6B-80K additions. OmniAir now offers testing and certification for 6C, TDM, and 6B-80K devices operating in single and multi-protocol states.

OmniAir Certification testing is performed through a network of independent, accredited test laboratories and authorized field-testing sites, especially configured for testing of electronic toll collection equipment.

III. OmniAir's Comments on NextNav Petition

While OmniAir recognizes a potential need for and potential public benefits from NextNav's stated goal of deploying a terrestrial PNT network to complement and back up GPS, OmniAir has serious concerns about deploying this proposed network in the Lower 900 MHz Band. NextNav fails to substantially address the potential effects on incumbent – and potential future – electronic tolling services operating in the band.

Electronic tolling operations have been deployed and operating in the Lower 900 MHz Band for more than 30 years. These services have been an unqualified success and provide significant public benefits to the traveling public on highways, bridges and tunnels: reduced congestion and more efficient travel for consumers, businesses and government; reduced pollution by eliminating wait times at toll booths; and enhanced safety by removing toll booths and maintaining a consistent traffic flow. Literally every year there are billions of toll transactions valued at billions of dollars, which revenues are used to support critical transportation infrastructure.

Currently, the non-multilateration Location and Monitoring Service ("non-M-LMS"), which includes incumbent licensees providing electronic tolling services, are authorized to operate at 902-904 MHz and 909.750–921.750 MHz, for a total of 14 MHz of spectrum. There are approximately 1500 active non-M-LMS licenses.[3] NextNav is proposing to reconfigure the Lower 900 MHz Band by creating a 5-megahertz uplink in the 902-907 MHz band paired with a 10-megahertz downlink in the 918-928 MHz band, shifting all the remaining non-M-LMS licensees to the 907-918 MHz portion of the band.[4]

More specifically, the NextNav proposal would reduce the current 14 MHz available to non-M-LMS operations to only 11 MHz total spectrum. Incumbent non-M-LMS licensees in the 902-904 MHz band would have to vacate their spectrum and move to the consolidated 11 MHz at 907-918 MHz. In addition, incumbent non-M-LMS licensees below 921.750 MHz also would have to move into the consolidated 11 MHz band. OmniAir has been informed that the tolling industry does not believe it is possible to relocate their existing systems within the Lower 900 MHz Band.

NextNav states that its proposed band plan would enable "coexistence between non-M-LMS and NextGen operations is attainable because (1) NextNav's understanding is that most (if not all) non-M-LMS equipment is frequency agile and (2) a contiguous 11-megahertz block will still be available for non-M-LMS operations—without any co-channel operations from NextNav."[5] NextNav further states that it is "completing technical analyses intended to guide outreach to non-M-LMS users on the potential impacts and mitigation measures, including by paying for retuning or relocation."[6] The Commission notes, however, that NextNav "does not quantify or describe the potential effects or how relocation would be accomplished."[7]

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[3] *NextNav Public Notice* at 2.

[4] NextNav Petition at 28-30.

[5] *Id*. at 31.

OmniAir cautions the Commission not to move forward with NextNav's rebanding proposal until – and if – it can satisfactorily answer these and other questions for non-M-LMS operations in the Lower 900 MHz Band, including specifically as potentially affecting incumbent electronic toll services. NextNav, as the Petitioner, should be obligated to address these questions with specific and credible answers.

At this time, OmniAir's specific concerns and questions include the following:

- How many incumbent non-LMS licensees would need to be relocated from the 902-904 MHz Band and below the 921.750 MHz Band into the consolidated 11 MHz at 907-918 MHz?
- Is the consolidated 907-918 MHz band sufficient spectrum for all incumbent non-M-LMS licensees? Is 11 MHz sufficient spectrum for potential future expanded operations?
- Would relocating non-M-LMS licensees involve replacing fixed RFID readers located on toll gantries? Or can these deployed devices be re-tuned to the new frequencies? What are the potential costs associated with either approach?
- Are distributed toll tags currently in the hands of the traveling public (literally numbering in the hundreds of millions of devices) capable of operating on the reconfigured frequencies for non-M-LMS? Or would replacement toll tags need to be distributed to the traveling public?
- Does NextNav have demonstrated and sufficient financial resources to pay for the implicated relocation costs?
- Independent third-party testing (bench and field) is needed to ascertain whether non-M-LMS operations in the consolidated 907-918 MHz Band would suffer harmful interference from out-of-band emissions from the adjacent NextNav operations. If this testing confirms that harmful out-of-band emissions are likely, what mitigation steps should NextNav implement to sufficiently reduce or eliminate the harmful interference?

OmniAir and its members are available to work with NextNav and other stakeholders to try to find answers to these and other questions, based on provable and objective facts.

IV. Conclusion

Every day, millions of electronic toll transactions take place on highways, bridges and tunnels across the United States using the Lower 900 MHz Band. NextNav's proposal to consolidate these non-M-LMS licensees in a reduced 11 MHz band at 907-918 MHz could put these operations at risk. OmniAir asks that NextNav be required to provide specific and credible answers regarding its proposed reconfiguration plan for the Lower 900 MHz Band and its potential effect on non-M-LMS operations, including for electronic toll services.

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[6] *Id*.

[7] *NextNav Public Notice* at 2.

Respectfully submitted,

/s/ Jason M. Conley

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